

pyrimidine nucleoside phosphorylase does not appear to be = to uridine phosphorylase

pyrimidine nucleoside phosphorylase has EC 2.4.2.2  
 uridine phosphorylase has EC 2.4.2.3 (see SRNT 11/25/2003)  
 steartothermophilus as a kind of thermophilic bacteria belonging

to bacillus genus. That is to say, both of purine nucleoside-phosphorylase (E.C.2,4,2,1.) and pyrimidine nucleoside-phosphorylase (E.C.2,4,2,2.) have been isolated from such microorganisms and refined for reporting various characteristics thereof (J. Biol. Chem., 244, 3691 (1969); Agric. Biol. Chem., 53, 2205 (1989); and Agric. Biol. Chem., 53, 3219 (1989)). Synthesis of a nucleoside analogue using such enzymes have been also reported (Agric. Biol. Chem., 53, 197-202 (1989); Japanese Patent Laid-Open Publication Sho 56-166199; Japanese Patent Laid-Open Publication Sho 56-164793; and Japanese Patent Laid-Open Publication Hei 1-320995).

[0004]

Yamanouchi et al. have found out Bacillus steartothermophilus, TH6-2 strain which contains nucleoside-phosphorylases (purine nucleoside-phosphorylase and pyrimidine nucleoside-phosphorylase) having thermotolerance and high specific activity from thermophilic bacteria belonging to bacillus genus and have succeeded in isolation of a nucleoside-phosphorylase from this microbe strain (International Patent Laid-Open Publication WO90/10080; "Nippon Nogei Kagaku Kai-shi", Vol. 63, No. 3, (Lecture Abstracts for 1989 Convention), p.283).

[0005]

[Problems to be solved by the invention]

Although the above enzymes found out by Yamanouchi et al. are extremely excellent enzymes, in the cases of using the microbe biomass per se of the microorganisms as the enzyme source for nucleoside preparation, the enzyme is released in the